

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	("5789773").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/04/19 09:05
S1	873	@ad<="20021231" and (257/79). ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 14:01
S2	227	@ad<="20021231" and (257/43). ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 13:48
S3	951	@ad<="20021231" and (257/200-201).ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 13:49
S4	247	@ad<="20021231" and (257/189). ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 13:50
S5	347	@ad<="20021231" and (257/101). ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 13:51
S6	972	@ad<="20021231" and (257/80-81).ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 13:50
S7	315	@ad<="20021231" and (257/86-87).ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 13:51
S8	564	@ad<="20021231" and (257/96). ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 13:59
S9	418	@ad<="20021231" and (257/102). ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 13:52

## EAST Search History

S10	2	@ad<="20021231" and 'light emitting diode' and 'cladding layer' same 'AlZnO'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 13:54
S11	1	"5760422".PN.	USPAT; USOCR	OR	ON	2004/12/14 13:57
S12	1	"5739553".PN.	USPAT; USOCR	OR	ON	2004/12/14 13:57
S13	1	"5614734".PN.	USPAT; USOCR	OR	ON	2004/12/14 13:57
S14	1	"5563422".PN.	USPAT; USOCR	OR	ON	2004/12/14 13:57
S15	6	((("6207972") or ("5717226") or ("5789768"))).PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/12/14 13:58
S16	874	@ad<="20021231" and (257/94).ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 13:59
S17	741	@ad<="20021231" and (257/E33.027)".ccls" or (257/E33.064).ccls. or (257/E33.067).ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 14:05
S18	4	"2001036131"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 14:07
S19	3	"2001044503"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 14:08
S20	26	@ad<="20021231" and 'light-emitting diode' and 'contact' with 'ZnO'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 14:43
S21	1	@ad<="20021231" and 'light-emitting diode' and 'AlZnO'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 14:52
S22	269	@ad<="20021231" and 'LED' and 'Zn' adj1 'O'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 18:04

## EAST Search History

S23	33	@ad<="20021231" and 'light-emitting diode' and 'Zn' adj1 'O'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 14:28
S24	18	@ad<="20021231" and 'light-emitting diode' and 'aluminum zinc oxide'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 14:30
S25	1	"5488235".PN.	USPAT; USOCR	OR	ON	2004/12/14 14:32
S26	1	"5281830".PN.	USPAT; USOCR	OR	ON	2004/12/14 14:33
S28	344	@ad<="20021231" and Lee-.in. and 'Light-emitting diode'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 14:34
S30	183	@ad<="20021231" and 'LED' and 'contact' and 'cladding' and 'active' and 'ZnO'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/10 08:02
S31	112	@ad<="20021231" and 'LED' and 'contact' and 'cladding' and 'active' and 'Zinc Oxide'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 09:21
S32	144	@ad<="20021231" and 'Light emitting diode' and 'contact' and 'cladding' and 'active' and 'Zinc Oxide'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 17:40
S33	1	"6204512".PN.	USPAT; USOCR	OR	ON	2004/12/14 15:55
S34	1	"6121127".PN.	USPAT; USOCR	OR	ON	2004/12/14 15:59
S35	1	"6078064".PN.	USPAT; USOCR	OR	ON	2004/12/14 15:59
S36	2	@ad<="20021231" and 'LED' and 'contact' and 'clad' and 'active' and 'Zinc Oxide' and 'schottky diode'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 16:27
S37	0	@ad<="20021231" and 'LED' and 'schottky diode' same 'window' same 'zinc oxide'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 16:28

## EAST Search History

S38	0	@ad<="20021231" and 'schottky diode' same 'window contact' same 'zinc oxide'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 16:28
S39	2	@ad<="20021231" and 'schottky diode' same 'contact' same 'zinc oxide'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 16:29
S40	3	@ad<="20021231" and 'schottky diode' and 'contact' with 'zinc oxide'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 16:33
S41	22	@ad<="20021231" and 'schottky diode' and 'zinc oxide' and 'window'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 16:33
S42	1	"6225648".PN.	USPAT; USOCR	OR	ON	2004/12/14 16:49
S43	75	@ad<="20021231" and 'Light emitting diode' and 'contact' and 'clad' and 'active' and 'Zinc Oxide'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 17:41
S44	42	@ad<="20021231" and 'Light emitting diode' and 'contact' and 'clad' and 'active' and 'Zinc Oxide' and 'barrier'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 17:41
S45	2	("5048035").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/12/14 17:50
S46	2	("5789768").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/12/14 17:50
S47	7	@ad<="20021231" and 'LED' and 'contact layer' with 'zinc oxide' and 'cladding'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 18:05
S48	3	@ad<="20021231" and 'schottky' and 'contact layer' with 'zinc oxide' and 'cladding'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/14 18:05

## EAST Search History

S49	1	"6225648".PN.	USPAT; USOCR	OR	ON	2004/12/14 18:10
S50	1	"6072203".PN.	USPAT; USOCR	OR	ON	2004/12/14 18:10
S51	1	"5821569".PN.	USPAT; USOCR	OR	ON	2004/12/14 18:11
S52	30	@ad<="20021231" and 'LED' and 'contact' and 'cladding' and 'active' and 'sheet resistance'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 09:54
S53	6	@ad<="20021231" and 'Light emitting diode' and 'cladding' and 'active' and 'sheet resistance' with 'omega'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 09:47
S54	8	@ad<="20021231" and 'diode' and 'nitride' same 'implant' and 'sheet resistance' with 'omega'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 09:52
S55	14	@ad<="20021231" and 'sheet resistance' same 'nitride compound'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 09:55
S56	1	@ad<="20021231" and 'sheet resistance' same 'InGaAlP'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 09:57
S57	4	@ad<="20021231" and 'sheet resistance' same 'AlGaInP'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 10:03
S58	1	@ad<="20021231" and 'sheet resistance' same 'InGaAlP'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 10:04
S59	3	@ad<="20021231" and 'Al' near1 'Ga' near1 'As' near1 'P' same 'resistance'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 10:08
S60	2	@ad<="20021231" and 'resistance' same In near1 Ga near1 Al near1 P	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 10:08

## EAST Search History

S61	5	@ad<="20021231" and 'resistance' same 'In' near1 'Ga' near1 'Al' near1 'As'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 10:08
S62	4	@ad<="20021231" and 'resistance' same 'In' near1 'Ga' near1 'Al' near1 'N'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 10:53
S63	7	@ad<="20021231" and 'resistance' same 'In' near1 'Ga' near1 'As' near1 'P'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 10:08
S64	27	@ad<="20021231" and 'resistance' same 'InGaAlN'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 10:09
S65	27	@ad<="20021231" and 'resistance' same 'InGaAlN'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 10:09
S66	142	@ad<="20021231" and 'cladding layer' same 'AlGaAs' with 'GaP'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 10:54
S67	92	@ad<="20021231" and 'cladding layer' with 'AlGaAs' with 'GaP'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 11:01
S68	3	@ad<="20021231" and 'cladding layer' with 'AlGaAs' with 'GaP' same 'dopant' with 'Zn'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 10:54
S71	3	@ad<="20021231" and 'cladding layer' with "'Al.sub.xGa.sub.yAs'"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 11:20
S72	29	@ad<="20021231" and 'cladding layer' with 'AlGaInP' with 'AlGaAs' with 'GaP'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 11:21
S73	0	@ad<="20021231" and 'cladding layer' with 'AlGaInP' with 'AlGaAs' with 'GaP' with 'Zn doping'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/10 09:24

## EAST Search History

S74	2	@ad<="20021231" and 'cladding layer' with 'AlGaInP' with 'AlGaAs' with 'GaP' with 'Zn'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 13:09
S75	15	@ad<="20021231" and 'AlGaAs' with 'Zn' with 'doping'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 13:21
S76	166	@ad<="20021231" and 'AlGaInP' with 'Zn'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 13:21
S77	9	@ad<="20021231" and 'AlGaInP' with 'Zn dopant'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 13:53
S79	31	@ad<="20021231" and 'light emitting diode' same 'ZnO' with 'Al'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 13:57
S80	0	@ad<="20021231" and 'light emitting diode' same 'ZnO' with 'Al' with '%'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 13:59
S81	228	@ad<="20021231" and 'ZnO' with 'Al' with '%'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 13:58
S82	9	@ad<="20021231" and 'light emitting diode' and 'ZnO' with 'Al' with '%'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 14:02
S83	75	@ad<="20021231" and 'Al doped ZnO'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 14:02
S84	416	@ad<="20021231" and Udagawa-takashi.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 14:44
S85	78	@ad<="20021231" and Udagawa-takashi.in. and 'light emitting diode'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 13:41

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S86	7	@ad<="20021231" and Udagawa-takashi.in. and 'ZnO' and 'window layer'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 14:46
S87	12	@ad<="20021231" and Udagawa-takashi.in. and 'ZnO'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/12/15 14:46
S88	19	@ad<="20021231" and 'surface' with 'LED' and 'contact' and 'cladding' same 'ZnO'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 08:26
S89	1	"5488235".PN.	USPAT; USOCR	OR	ON	2005/06/10 08:11
S90	1	"5281830".PN.	USPAT; USOCR	OR	ON	2005/06/10 08:12
S91	77	@ad<="20031231" and Udagawa-takashi.in. and 'LED'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/10 08:29
S92	1	@ad<="20031231" and 'Al' adj1 'Ga' adj1 'In' adj1 'P' and 'light emitting diode' and ('Zinc oxide' or 'ZnO')	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/10 08:31
S93	3	@ad<="20031231" and 'Al' adj1 'Ga' adj1 'In' adj1 'P' and ('light emitting diode' or 'laser') and ('Zinc oxide' or 'ZnO')	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/10 08:34
S94	300	@ad<="20031231" and 'AlGaInP' and ('light emitting diode' or 'laser') and ('Zinc oxide' or 'ZnO')	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/10 08:35
S95	9	@ad<="20031231" and 'AlGaInP' and ('light emitting diode' or 'laser') and 'clad' same ('Zinc oxide' or 'ZnO')	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/10 08:44
S96	89	@ad<="20031231" and 'AlGaInP' and 'laser' and 'window' and ('Zinc oxide' or 'ZnO')	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/10 08:44
S97	16	@ad<="20031231" and 'AlGaInP' and 'laser' and 'window' same ('Zinc oxide' or 'ZnO')	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/10 08:50



## EAST Search History

S98	3	@ad<="20031231" and 'AlGaInP' and 'laser' and 'clad' same 'window' same ('Zinc oxide' or 'ZnO')	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/10 08:50
S99	2	@ad<="20021231" and 'cladding' with 'AlGaInP' same 'p doping'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/10 09:25
S10 0	2	"20040262620"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 08:21
S10 1	19	@ad<="20021231" and 'surface' with 'LED' and 'contact' and 'cladding' same 'ZnO'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 08:26
S10 2	42	@ad<="20021231" and ('LED' or 'light emitting diode') and 'cladding' with 'ZnO'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 08:32
S10 3	39	@ad<="20021231" and ('LED' or 'light emitting diode') and 'clad layer' with ('zinc oxide' or 'ZnO')	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 08:33
S10 4	51	@ad<="20021231" and ('LED' or 'light emitting diode') and ('zinc oxide' or 'ZnO') with 'cladding'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 08:33
S10 5	39	@ad<="20021231" and ('LED' or 'light emitting diode') and ('zinc oxide' or 'ZnO') with 'clad layer'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 09:11
S10 6	1	"5670798".PN.	USPAT; USOCR	OR	ON	2005/10/12 08:36
S10 7	1	"5617446".PN.	USPAT; USOCR	OR	ON	2005/10/12 08:37
S10 8	1	"5567646".PN.	USPAT; USOCR	OR	ON	2005/10/12 08:42
S10 9	1	"5477063".PN.	USPAT; USOCR	OR	ON	2005/10/12 08:42
S11 0	1	"5404027".PN.	USPAT; USOCR	OR	ON	2005/10/12 08:43
S11 1	1	"5488235".PN.	USPAT; USOCR	OR	ON	2005/10/12 08:44

## EAST Search History

S11 2	1	"5281830".PN.	USPAT; USOCR	OR	ON	2005/10/12 08:44
S11 3	1	"6456640".PN.	USPAT; USOCR	OR	ON	2005/10/12 08:59
S11 4	1	"6410162".PN.	USPAT; USOCR	OR	ON	2005/10/12 09:00
S11 5	1	"6153010".PN.	USPAT; USOCR	OR	ON	2005/10/12 09:00
S11 6	1	"6057561".PN.	USPAT; USOCR	OR	ON	2005/10/12 09:00
S11 7	1	"5889295".PN.	USPAT; USOCR	OR	ON	2005/10/12 09:01
S11 8	45	@ad<="20021231" and 'laser' and 'ZnO' same 'doped al'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 10:41
S11 9	69	@ad<="20021231" and 'laser' and 'Al' near 'doped' near 'ZnO'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 10:46
S12 0	74	@ad<="20021231" and ('laser' or 'diode') and 'Al' near 'doped' near 'ZnO'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 10:55
S12 1	74	@ad<="20021231" and ('laser' or 'diode') and 'Al' near 'doped' near 'ZnO'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 10:55
S12 3	430	@ad<="20021231" and 'laser' and 'cladding layer' and 'ZnO'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 10:56
S12 4	218	@ad<="20021231" and 'laser' and 'clad layer' and 'ZnO'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 11:50
S12 5	2	'JP 11206039'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 11:14
S12 6	2	'JP 2001036131'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 11:14

## EAST Search History

S12 7	1	@ad<="20021231" and 'current spreading' near5 'ZnO'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 11:51
S12 8	125	'current spreading' and 'ZnO'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 11:58
S12 9	34	'current' near 'constriction' and 'ZnO'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 12:09
S13 0	1	'current' near 'constriction' near 'ZnO'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 12:09
S13 1	476	'Udagawa takashi'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 13:37
S13 2	14	'Udagawa takashi' and 'ZnO'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 13:41
S13 3	87	'Udagawa takashi' and 'LED'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 13:41
S13 4	109	'Udagawa-takashi' and 'light emitting diode'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 13:41
S13 5	109	'Udagawa takashi' and 'light emitting diode'	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/12 13:53
S13 6	2	('6597716").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/12 13:53

## EAST Search History

S13 7	0	@ad<="20021231" and AI adj1 "ZnO" same ("current expansion" or "current constricting")	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 15:36
S13 8	0	@ad<="20021231" and AI adj1 "ZnO" same "current expansion"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 15:01
S13 9	0	@ad<="20021231" and AI adj1 "ZnO" same "current constricting"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 15:01
S14 0	8	@ad<="20021231" and "ZnO" same ("current expansion" or "current constricting")	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 15:10
S14 1	0	@ad<="20021231" and "ZnO" same "current expansion" and "current constricting"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 15:02
S14 3	6	@ad<="20021231" and ("LED" or "light emitting diode") same "current expansion"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 15:16
S14 4	0	@ad<="20021231" and ("LED" or "light emitting diode") and "current expansion" same "ZnO"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 15:18
S14 5	0	@ad<="20021231" and ("LED" or "light emitting") and "current expansion" same (conductive with "ZnO" or "zinc oxide")	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 15:21
S14 6	1075	@ad<="20021231" and ("LED" or "light emitting") same (conductive with "ZnO" or "zinc oxide")	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 15:22
S14 7	441	@ad<="20021231" and ("LED" or "light emitting") with (conduct\$3 with "ZnO" or "zinc oxide")	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 15:45
S14 8	21	@ad<="20021231" and ("LED" or "light emitting") same (conductive with "ZnO" or "zinc oxide") same cladd\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 15:23

## EAST Search History

S14 9	21	@ad<="20021231" and ("LED" or "light emitting") same (conduct\$3 with "ZnO" or "zinc oxide") same cladd\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 15:23
S15 0	8	@ad<="20021231" and ("LED" or "light emitting") and conduct\$3 with ("ZnO" or "zinc oxide") same cladd\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 15:29
S15 1	527	@ad<="20021231" and ("LED" or "light emitting") and conduct\$3 near3 ("ZnO" or "zinc oxide")	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 15:29
S15 2	127	@ad<="20021231" and ("LED" or "light emitting") and conduct\$3 near1 ("ZnO" or "zinc oxide")	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 15:29
S15 4	2190	@ad<="20021231" and ("LED" or "light emitting") and ("ZnO" or "zinc oxide") with conduct\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 15:30
S15 5	0	@ad<="20021231" and ("ZnO" or "zinc oxide") same ("current expans\$3" or "current spread\$4")	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 15:38
S15 6	0	@ad<="20021231" and ("ZnO" or "zinc oxide") same "current spread\$3"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 15:38
S15 7	5	@ad<="20021231" and ("ZnO" or "zinc oxide") same "current spreading"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 15:38
S15 8	1	"5488235".PN.	USPAT; USOCR	OR	ON	2006/04/17 15:43
S15 9	1	"5281830".PN.	USPAT; USOCR	OR	ON	2006/04/17 15:43
S16 0	1	"5488235".PN.	USPAT; USOCR	OR	ON	2006/04/17 15:44
S16 1	340	@ad<="20021231" and ("LED" or "light emitting") same current adj1 spread\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 15:46

## EAST Search History

S16 2	92	@ad<="20021231" and ("LED" or "light emitting") same current adj1 (spread\$3 or expan\$5) same cladd\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/17 16:15
S16 3	2	("5,789,768").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/04/17 16:15